

# yumeng ma

HUMAN-AI INTERACTION · ACCESSIBILITY · VISUAL & SOCIAL COMPUTING

✉ yumengma@uw.edu | 🌐 yumengma.com | 📱 momentine

## Education

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### University of Washington

Seattle, WA

INCOMING PHD IN COMPUTER SCIENCE AND ENGINEERING

### Brown University

Providence, RI

SC.M IN COMPUTER SCIENCE (HUMAN-COMPUTER INTERACTION)

2022 - 2024

GPA: 4.0 / 4.0

Coursework: UI/UX, Designing Humanity Centered Technology, HCI Seminar, Collaborative Robotics, Computer Graphics

### Arizona State University

Tempe, AZ

B.S. IN COMPUTER SCIENCE AND PSYCHOLOGY

2019 - 2022

Barrett Honors College

GPA: 4.0 / 4.0 Summa Cum Laude

Thesis: "Assessing Exhibit Interaction through Bridging the Connections Between Biometrics and Traditional Tools"

## Publications

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\* *equal contribution*

### CONFERENCE PROCEEDINGS

Zainab Iftikhar, **Yumeng Ma**, and Jeff Huang. 2023. "Together but not together": Evaluating Typing Indicators for Interaction-Rich Communication. In Proceedings of the 2023 Conference on Human Factors in Computing Systems (CHI '23). *Paper*

Ian Gonsler, **Yumeng Ma**, Ivan Pineda-Dominguez, Matthew Lee, and Yuxin. 2023. The Mixed Reality Passthrough Window: Rethinking the Laptop Videoconferencing Experience. Human Interaction and Emerging Technologies (IHET-AI 2023): Artificial Intelligence and Future Applications. *Paper*

### SHORT PAPERS & EXTENDED ABSTRACTS

**Yumeng Ma\*** and Jiahao Ren\*. 2023. ProactiveAgent: Personalized Context-Aware Reminder System. In The 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23 Adjunct). *Paper*

## Experience

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### Brown Department of Neuroscience

Providence, RI

COMPUTER VISION RESEARCH ASSISTANT

2023 - 2024

- Built a visual prosthesis system for blind and low vision users to locate everyday objects and read surrounding text.

### Brown + NASA

Providence, RI

MOBILE DEVELOPER RESEARCH ASSISTANT

2023 - 2024

- Developed and led the final integration of a sound and haptic enabled visualization cross-platform mobile app to encourage blind and low vision individuals to explore and learn about space.

### Civillience

Remote

PRODUCT MANAGER & UI/UX DESIGNER INTERN | LIAISON BETWEEN FRONTEND AND UIUX

2023

- Led the UI/UX team to design a web-based app with interactive health data visualizations and create reusable components for the design system to maintain consistency throughout the product.

**Brown Department of Engineering***Providence, RI***DESIGN RESEARCH ASSISTANT***2022 - 2023*

- Introduced a new paradigm for the integration of AR into laptop and desktop displays to enable local users to interact more easily and seamlessly with remote users during videoconferencing sessions.

**UCLA HCI Lab***Los Angeles, CA***HCI RESEARCH INTERN***2023*

- Led the development of a proactive reminder system that takes in user context, history, and spoken interactions by leveraging LLMs and personal agents.

**Brown HCI Lab***Providence, RI***DISTRIBUTED RESEARCH EXPERIENCES FOR UNDERGRADUATES INTERN***2022*

- Designed novel typing indicators and found that they enhance user co-presence in written communication through in depth surveys and interviews.

**ASU SoLET Lab***Tempe, AZ***PSYCHOLOGY RESEARCH ASSISTANT***2022*

- Conducted testing and evaluation of tutoring systems to optimize learning and educational practices for underrepresented groups.

**NASA Psyche Mission***Tempe, AZ***COLLABORATOR***2021-2022*

- Developed a web app that allows users to interact with the Psyche Spacecraft model and led user studies with biometric data analysis that showed the app increased public engagement.

**Awards, Fellowships, & Grants**

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2024 **NSF Graduate Research Fellowship**, NSF

2024 **Paul G. Allen School Diamond Fellowship**, University of Washington

2023 **Tapia Celebration of Diversity in Computing Conference Scholarship**, Brown University

2019 - 2023 **Microsoft DisAbility Scholarship**, Microsoft

2022 **Google CS Research Mentorship Program Fellowship**, Google

2022 **Virtual Grace Hopper Celebration Scholarship**, AccessComputing

**Teaching**

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Spring '22 **Information Assurance**, TA for Adam Doupe and Tiffany Bao, ASU

**Extracurricular & Work Activities**

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2021 - Present **Member**, AccessComputing

2022 - 2024 **Master's Representative**, Brown University CS Diversity Committee

2023 **Student Volunteer**, UIST

2020 - 2021 **Microsoft Support / Xbox Advocate Contract**, Microsoft

*Providence, RI**San Francisco, CA**Tempe, AZ***Skills**

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**Programming** Python, C/C++, C#, Java, Unix/Linux, ROS

**Web/Mobile** HTML, CSS, Javascript, Typescript, React, React Native, Vue, Electorn, APIs, Git

**Game Dev** Unity, OpenGL

**Data** Jupyter Notebook, MySQL, MATLAB, JSON

**Design** UI/UX, Adobe Creative Suite, Figma, Wireframing, Fusion360, Blender